

Claims

1. Method for producing dual-phase steels from the hot-rolled state with a two-phase microstructure of 70 to 90 % ferrite and 30 to 10 % martensite by a controlled temperature guiding and defined cooling strategy during the cooling of the steels, inter alia by means of water cooling after their finish rolling, wherein in a first cooling stage at a cooling rate of < 30 K/s the cooling curve enters the ferrite region and, after reaching the required ferrite contents, further cooling is carried out in a second cooling stage at a cooling rate of > 30 K/s to temperatures below the martensite starting temperature, characterized in that
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- a) the first cooling stage (14) is carried out in a cooling stretch of water cooling stages (7), arranged successively at a spacing, or in a cooling system with continuously changeable cooling medium quantity with a cooling rate of 30 K/s adjusted such
 - b) that the cooling curve (10) enters the ferrite region a temperature still so high that the ferrite formation can take place quickly; and,
 - c) before begin^{ing} of the second cooling stage (16), which follows without intermediate air cooling and holding time directly after the first cooling stage (14), already at least 70 % of the austenite is transformed to ferrite.

2. Method according to claim 1, ^{wherein} ~~characterized in that~~ the cooling of the first cooling stage is continued during the transformation of the austenite into ferrite up to the desired ferrite contents of at least 70 %.
3. Device for performing the method according to ^{claim 1} ~~one or several of the preceding claims~~, for producing dual-phase steels from the hot-rolled state, ^{wherein} ~~characterized by~~ a cooling stretch (6) arranged behind the last finish roll stand (1) and having several water cooling stages (7) positioned successively at a spacing or having cooling systems with a continuously adjustable cooling ~~medium~~ quantity.
4. Device according to claim 3, ^{wherein} ~~characterized in that~~ the number of water cooling stages (7), their effective length, and their spacing from one another are changeable or continuously adjustable in the case of quantity control.